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PTO/SB/17 (12-04v2)

Approved for use through 07/31/2006. CWB 0851-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid CMB control number Complete if Known Effective on 12/08/2004 int to the Consolidated Appropriations Act, 2005 (H.R. 4818). 10/665.634 **Application Number** TRANSMITTAL Filing Date September 19, 2003 For FY 2005 First Named Inventor Charles L. Gray, Jr. **Examiner Name** Trieu, Thai-Ba Applicant claims small entity status. See 37 CFR 1.27 Art Unit 3748 TOTAL AMOUNT OF PAYMENT 120 00 Attorney Docket No. EPA 680-03 **METHOD OF PAYMENT (check all that apply)** Check Credit Card Money Order None Other (please identify): Deposit Account Name: U.S. Env. Prot. Agency √ Deposit Account Deposit Account Number: 051128 For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) √ Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee Charge any additional fee(s) or underpayments of fee(s) Credit any overpayments under 37 CFR 1.16 and 1.17 WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. FEE CALCULATION BASIC FILING, SEARCH, AND EXAMINATION FEES **FILING FEES EXAMINATION FEES** SEARCH FEES Small Entity Small Entity Small Entity **Application Type** Fee (8) Fee (8) Fee (\$) Fees Paid (8) Fee (\$) Fee (\$) Fee (3) Utility 300 200 500 150 250 100 Design 200 100 100 50 130 65 Plant 200 300 100 160 150 80 Reissue 300 150 500 600 250 300 200 100 **Provisional** 0 O **Small Entity** 2. EXCESS CLAIM FEES Fee (8) Fee (\$) Fee Description Each claim over 20 (including Reissues) 50 Each independent claim over 3 (including Reissues) 200 100 Multiple dependent claims 360 180 **Total Claims** Fee Paid (\$) **Multiple Dependent Claims** Extra Claims Fee (8) Fee Paid (§) Fee (3) HP = highest number of total claims paid for, if greater than 20. Extra Claims Fee Paid (\$) HP = highest number of independent claims paid for, if greater than 3. 3. APPLICATION SIZE FEE If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). Number of each additional 50 or fraction thereof Total Sheets Extra Sheets (round up to a whole number) x - 100 = Fees Paid (8) Non-English Specification, \$130 fee (no small entity discount) Other (e.g., late filing surcharge): IDS, under 37 CFR 1.17(p) & 1.97(c)

SUBMITTED BY			
Signature	Dovid Read	Registration No. (Attorney/Agent) 47,888	Telephone 734-214-4367
Name (Print/Type)	David H. Read		Date August 11, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

Charles L. Gray, Jr

Application Number :

10/665,634

Filing Date

September 19, 2003

Invention Title

Methods for low emission, controlled temperature combustion in engines which utilize late direct cylinder

injection of fuel

**Examiner Name** 

: Trieu, Thai-Ba

Art Unit

3748

Attorney Docket

: EPA 680-03

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

In accordance with 37 CFR 1.56 and 1.97 through 1.98, applicant makes known to the U.S. Patent and Trademark Office the references set forth on the attached PTO Forms. Copies of the cited U.S. patents and published patent applications are not required and accordingly have not been provided. Copies of all other cited references are enclosed. As to any reference cited, applicant does not admit that such art is relevant or is actually prior art to the application.

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David H. Read, Reg. No. 47,888

U.S. Environmental Protection Agency

National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road

Ann Arbor, MI 48105

Telephone: (734) 214-4367 Facsimile: (734) 214-4573

E-Mail: read.david@epa.gov

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	itute for form 1449/PTO		/ 5		plete if Known	
			AUG 1 1 2005 %	Application Number	10/665,634	
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27	ATEMENIT		CLOSURE PROCES	First Named Inventor	Charles L. Gray, Jr.	
31	AICIVICIVI	DIAI	THE WAR	Art Unit	3748	
	(Use as many s	neets as ne	ecessary)	Examiner Name	Trieu, Thai-Ba	
Sheet		of	1	Attorney Docket Number	EPA 680-03	

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Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (d known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 4,727,849	03-01-1988	Nishida	
		US- 6,606,979	01-31-2002	Kimura	Figure 12.
		US- 6, 508, 237	01-23-2003	Romzek Monceile	J
		US. 6,523,529	02-25-2003	Monceile	
		US- 6, 273, 076	08-14-2001	Beck	
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FOREIGN PATENT DOCUMENTS						
Examiner Cite Initials* No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
		Country Code <sup>3 -</sup> Number <sup>4 -</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO  AUG 1 1 2005	Application Number	10/665,634	
INFORMATION DESCLOSURE	Filing Date	Sept. 19, 2003	
STATEMENT BY ARPLICANT	First Named Inventor	Charles Li Gray, Jr.	
	Art Unit	3748	
(Use as many sheets as necessary)	Examiner Name	Trien, Thai-Ba	
Sheet of	Attorney Docket Number	EPA 680-03	

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
	HIDEYUKI TSUNE MOTO, et al., The Role of Oxygen in Intake and Exhaust on NO Emission, Smoke and BMEP of a Diese! Engine with EGR System, SAE Technical Paper 800030 (1980)				
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Signature	Considered	
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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